



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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Designer's Data Sheet

Part Number/Ordering Information ^{1/}

1N3909

Screening ^{2/} ___ = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

Pin Configuration ___ = Normal (Cathode to Stud)
(See Table 1) R = Reverse (Anode to Stud)

Family/Voltage 1N3909 = 50V

1N3910 = 100V

1N3911 = 200V

1N3912 = 300V

1N3913 = 400V

1N3909

Thru

1N3913

30A, 200nsec, 50-400 V
Fast Recovery Rectifier

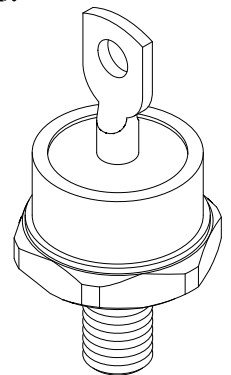
Features:

- Fast Recovery: 200nsec Maximum (100nsec typ.) ^{3/}
- Low Reverse Leakage Current
- Single Chip Construction
- PIV to 400V, Higher Voltages Available
- Hermetically Sealed Isolated Package
- High Surge Rating
- TX, TXV, and S-Level Screening Available ^{2/}

Maximum Ratings ^{4/}

	Symbol	Value	Units
Peak Repetitive Reverse Voltage	1N3909	50	Volts
	1N3910	100	
	1N3911	200	
	1N3912	300	
	1N3913	400	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _A = 25 °C)	I _O	30	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25 °C, per leg)	I _{FSM}	300	Amps
Operating & Storage Temperature	T _{OP}	-55 to +150	°C
	T _{STG}	-65 to +175	
Maximum Total Thermal Resistance Junction to Case	R _{θJC}	1.2	°C/W

DO-5:



Notes:

1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.

2/ Screened to MIL-PRF-19500.

3/ Recovery Conditions: I_F = 500 mA, I_R = 1 Amp, I_{RR} = 250 mA.

4/ Unless Otherwise Specified, All Maximum Ratings/Electrical Characteristics @25°C.

NOTE: All specifications are subject to change without notification.
SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: RC0114A

DOC



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1N3909

Thru

1N3913

Electrical Characteristics (per leg) ^{4/}		Symbol	Max	Units
Maximum Instantaneous Forward Voltage Drop (Pulsed)	$I_F = 30A, T_A = 25^\circ C$	V_{F1}	1.40	V_{DC}
	$I_F = 30A, T_A = -55^\circ C$	V_{F2}	1.50	
Maximum Reverse Leakage Current (Rated V_R Minimum)	$T_A = 25^\circ C$	I_{R1}	80	μA
	$T_A = 100^\circ C$	I_{R2}	10	mA
Maximum Reverse Recovery Time ($I_F = 500\text{ mA}$, $I_R = 1\text{ Amp}$, $I_{RR} = 250\text{ mA}$)		t_{RR}	200	nsec
Typical Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ C$, $f = 1\text{MHz}$)		C_J	200	pF

Notes:

1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.

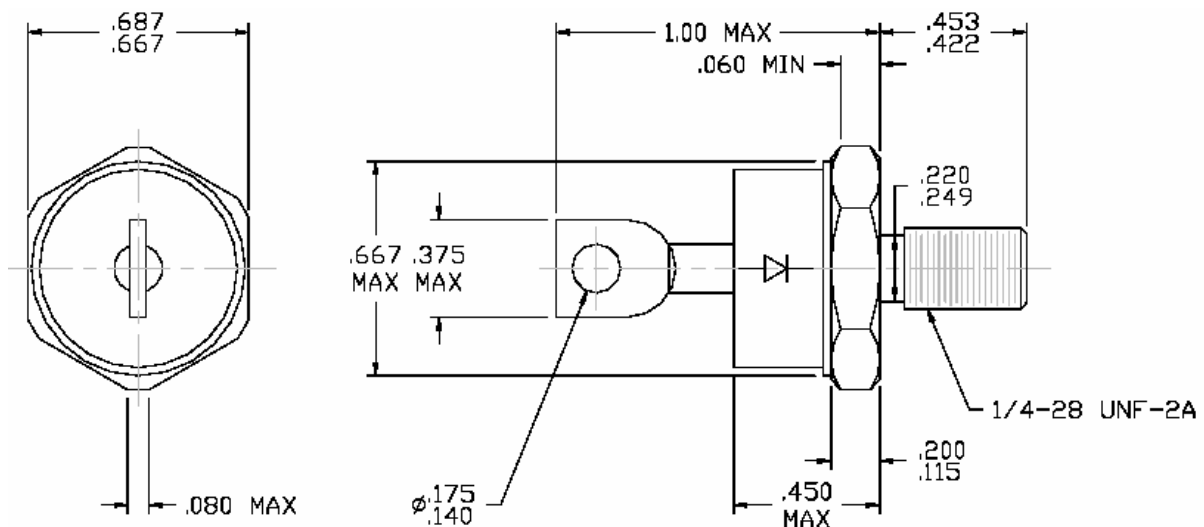
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Table 1- PIN ASSIGNMENT			
Code	Configuration	Terminal	Stud
—	Normal	Anode	Cathode
R	Reverse	Cathode	Anode

DO-5 Outline (Normal Pin Configuration Shown):



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